

**Louisiana Pacific Corporation
Lockhart, Alabama
EPA I.D. Number ALD 095 687 786**

FACT SHEET

A draft Alabama Hazardous Waste Management and Minimization Act (AHWMMA) permit modification has been prepared for the Louisiana Pacific Corporation located in Lockhart, Alabama. This fact sheet has been prepared to briefly advise the public of the principal permitting, legal and policy issues of the draft modified permit.

I. PERMIT PROCESS

The purpose of the permitting process is to allow the State and the public to evaluate Louisiana Pacific Corporation's ability to comply with the hazardous waste management requirements of the AHWMMA, as amended. Louisiana Pacific Corporation must comply with hazardous waste management conditions set forth in the permit during the effective period of the permit, which is ten (10) years.

II. PROCEDURES FOR REACHING A FINAL DECISION

The Alabama Department of Environmental Management (ADEM or Department) is proposing to modify specific parts of Louisiana Pacific Corporation's permit for post-closure care for the surface impoundments, namely Pond-1, Pond-2 and Pond-3. Pond-2 and Pond-3 were closed with wastes and/or contaminated materials remaining in-place in June 1988. Pond-1 was closed with waste in place and a slurry wall around it in 2004. Some of the waste remained outside the slurry wall which became the source of contamination. This draft permit modification proposes to initiate a corrective action to stabilize the contaminated waste that remains outside of the three surface impoundments.

ADEM Admin. Code Rule 335-14-8-.08(6)(b)1. requires that the public be given a 45-day comment period for each draft permit modification. The comment period will begin on July 6, 2010 which is the date of publication of the public notice in major local newspaper(s) of general circulation, and will continue for 45 days.

Any person interested in commenting on the draft permit modification must do so within the 45-day comment period discussed above.

All persons wishing to comment on any of the permit conditions or the modified permit should submit their comments in writing within 45 day period from the date of publication of this notice to the Alabama Department of Environmental Management, Permits and Services Division, 1400 Coliseum Blvd. (zip 36110-2059), P.O. Box 301463 (zip 36130-1463) Montgomery, Alabama, ATTENTION: Mr. Russell A. Kelly.

ADEM will consider all written comments received during the comment period while making a permit decision for this facility. When the Department makes its final permit decision, notice will be given to the applicant and each person who has submitted written comments or requested notice of the final permit decision.

III. FACILITY DESCRIPTION

Louisiana Pacific Corporation purchased the Lockhart facility from Tennessee River Pulp and Paper Company (TRP&P) in November 1983. TRP&P used Pond-1, Pond-2 and Pond-3 for the management of wastewater from wood treating operations. A closed loop chromate copper arsenic wood treating process was installed at the site in 1984. This eliminated the need for Pond-2 and Pond-3, which were closed as per the ADEM approved closure plan in June 1988. A groundwater recovery system was installed in 1992 to address the presence of wood treating related waste outside the Pond-2 and Pond-3. This system

operated until 2004 when it was shut down because of the corrective action initiated at Pond-1. Corrective measures taken at Pond-1 included the installation of a slurry wall around Pond-1 and a low permeability cap over Pond-1. The slurry wall also surrounded some portion of the former wood treating plant. During installation of slurry wall, efforts were undertaken to excavate the free product - primarily dense non-aqueous phase liquids (DNAPL) downgradient of Pond-1 and Pond-2. The free product was placed inside the slurry wall and beneath the impermeable cap. Some DNAPL remained unnoticed at the time and became the source for further contamination in the groundwater.

IV – SUMMARY OF PROPOSED MODIFICATIONS

This draft permit modification proposes to stabilize the source of contamination by mixing of Portland cement with DNAPL impacted media in the ratio of 15:85. The mixing of Portland cement and impacted media will be done in-situ as per EPA's "Area of Contamination (AOC) Concept, During RCRA Cleanups" Policy Guidance. Portland cement will be mixed with DNAPL impacted soil by turning the media a minimum of five times to create a homogenous soil mixture. The work will proceed until stabilization of all of the impacted area is complete. The excavated overburden will be returned to the area in six inch increments and compacted. Portland cement and impacted media stabilization will be followed by three years of quarterly groundwater and surface water monitoring to evaluate the effectiveness of the stabilization. This modification also proposes to change groundwater protection standard from USEPA Region-9 risk based concentrations (RBCs) to Alabama Risk Based Corrective Action Guidance (ARBCA).

V- PAGE CHANGE LIST

Section/Appendix	Remove Page(s)	Insert Page(s)	Reason
Permit		Brown Cover Page	Date change
Permit		Page 1 of 2 (M1)	Date change
Permit		Page 2 of 2 (M1)	Date Change
Permit, Part-I	Page 8 of 10	Page 8 of 10 (M1)	To site correct reference to ADEM Admin. Code for the definition of <i>Land Use Control</i>
Permit, Part-I	Page 10 of 10	Page 10 of 10 (M1)	To reflect current EPA address
Permit, Part-II	Page 3 of 3	Page 3 of 3 (M1)	To reflect correct quantity of hazardous waste in Pond-1
Permit, Part-III	Page 2 of 11	Page 2 of 11 (M1)	To add monitoring well PZ-7 to groundwater monitoring program
Permit, Part-III	Page 3 of 11	Page 3 of 11 (M1)	To remove monitoring well 21 from groundwater monitoring program
Permit, Part-III	Page 8 and 9 of 11	Page 8 and 9 of 11 (M1)	To reflect the current status of groundwater monitoring program
Permit, Part-III	Page 10 of 11	Page 10 of 11 (M1)	To reflect current groundwater quality monitoring constituents
Permit, Part-III	Page 11 of 11	Page 11 of 11 (M1)	To change groundwater protection standard per ARBCA guidance
Permit, Part-IV	Page 9 through 11 of 11	Page 9 through 11 of 11 (M1)	To add Pond-1 as closed with waste in place, and to reflect the current status of SWMUs and AOCs
Permit, Part-V	Page 1 of 7	Page 1 of 7 (M1)	To reflect current status of

			corrective actions at AOC-F
Permit, Part-V	Page 2 and 3 of 7	Page 2 and 3 of 7 (M1)	To include environmental covenant language per ADEM Admin. Code r. 335-5
Permit, Part-V	Page 7 of 7	Page 7 of 7 (M1)	To reflect current status of corrective actions at all SWMUs and AOCs
Permit, Part-VI	Page 3 of 3	Page 3 of 3 (M1)	To include environmental covenant language per ADEM Admin. Code r. 335-5
Permit Application		Revised Corrective Action Plan	To include Revised Corrective Action Plan in the permit by reference

VI - TECHNICAL CONTACT

The technical contact for the Louisiana Pacific Corporation draft permit is listed below.

Naveen C. Sharma
Engineering Services Section
Industrial Hazardous Waste Branch, Land Division
Alabama Department of Environmental Management
1400 Coliseum Blvd (zip 36110-2059)
P.O. Box 301463 (zip 36130-1463)
Montgomery, Alabama
(334) 270-5608

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
HAZARDOUS WASTE PERMIT

Permittee:

OWNER:

Louisiana Pacific Corporation
Highway 55
Lockhart, Alabama 36455
Covington County

Permit Number:

ALD 095 687 786

Identification Number:

ALD 095 687 786

Modification 1

XXXXXXXXXX

OPERATOR:

Louisiana Pacific Corporation
Highway 55
Lockhart, Alabama 36455
Covington County

Pursuant to the Alabama Hazardous Wastes Management and Minimization Act (AHWMMA), Code of Ala. 1975, Section 22-30-1, et. seq., as amended, and attendant regulations promulgated thereunder by the Alabama Department of Environmental Management (ADEM or the Department), a permit is issued to Louisiana Pacific Corporation for the facility located in Lockhart, Alabama, at latitude N 31° 00' 20.1" and longitude W 86° 20' 36.9".

The Permittee must comply with all terms and conditions of this permit, which consists of the conditions set forth herein (including those in any attachments), and the regulations applicable to the Permittee's facility contained in Chapters 335-14-1, 335-14-2, 335-14-5, 335-14-8, and 335-14-9 of the ADEM Administrative Code of Regulations (hereinafter referred to as the "ADEM Admin. Code Rule"). Applicable regulations are those which are in effect on the date of issuance of this permit.

This permit is based on the assumption that the information submitted in the permit application attached to the Permittee's letter dated August 24, 2000 as modified by subsequent amendments dated May 24, 2001, March 29, 2002, February 25, 2003, June 17, 2003 and the revised corrective action plan dated December 24, 2009 (hereby incorporated by reference and hereafter referred to as the Application) is accurate and that the facility will be constructed and operated as specified in the Application. Any inaccuracies found in this information could lead to the termination or modification of this permit in accordance with ADEM Admin. Code Rules 335-14-8-.04(2), 335-14-8-.04(3), and 335-14-8-.04(4) and could lead to potential enforcement action. The Permittee must inform ADEM of any deviation from or changes in the information provided in the Application that would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This permit is effective as of September 25, 2003 as modified XXXXXXXX and shall remain in effect until September 24, 2013 unless revoked and reissued, or terminated under ADEM Admin. Code Rules 335-14-8-.04(2) and 335-14-8-.04(4) or continued in accordance with ADEM Admin. Code Rule 335-14-8-.05(2).

Alabama Department of Environmental Management

Date Signed

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Documents Incorporated By Reference:

Part A and Part B Permit Application submitted on August 24, 2000 as modified by subsequent amendments dated May 24, 2001, March 29, 2002, February 25, 2003, and June 17, 2003.

Corrective Measures Work Plan submitted on May 24, 2001, as modified by subsequent amendments dated March 29, 2002, February 25, 2003, and June 17, 2003.

Design and Analysis Report submitted on May 24, 2001, as modified by subsequent amendments dated March 29, 2002, February 25, 2003 and June 17, 2003.

Revised Corrective Action Plan dated December 24, 2009.

PART I

STANDARD AND GENERAL FACILITY CONDITIONS

I.A. EFFECT OF PERMIT

Issuance of this permit does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under the AHWMA, or any other law governing protection of public health or the environment, for any imminent and substantial endangerment to human health, welfare, or the environment.

I.B. SEVERABILITY

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

I.C. DUTIES AND REQUIREMENTS

1. Duty to Comply

The Permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance, other than noncompliance authorized by an emergency permit, constitutes a violation of the AHWMA, and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

2. Duty to Reapply

- a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- b. The Permittee must submit an application for a new permit for both post-closure and Solid Waste Management Unit (SWMU) corrective action at least 180 calendar days before the expiration of this permit. The Permittee must reapply in order to fulfill the 30-year post-closure care period required by ADEM Admin. Code Rule 335-14-5-.07(8)(a)1. The Department may shorten or extend the post-closure care period applicable to the hazardous waste facility in accordance with ADEM Admin. Code Rules 335-14-5-.07(8)(a)2. and 335-14-8-.03(1)(b).

3. Need to Halt or Reduce Activity Not A Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. Duty to Mitigate

In the event of noncompliance with this permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

5. Proper Operation and Maintenance

The Permittee shall, at all times, properly operate and maintain all facilities and systems of treatment, monitoring, and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance (O&M) includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit.

6. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause as specified in ADEM Admin. Code Rules 335-14-8-.04(2), 335-14-8-.04(3) and 335-14-8-.04(4). The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay any permit condition.

7. Property Rights

Issuance of this permit does not convey any property rights of any sort, nor any exclusive privilege.

8. Duty to Provide Information

The Permittee shall furnish to the Department, within a reasonable time as determined by the Department, any relevant information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

9. Inspection and Entry

The Permittee shall allow duly designated officers and employees of the Department, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,
- d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the AHWMMMA, any substances or parameters at any location. The Permittee shall have the opportunity to split samples during sampling.

10. Monitoring and Records

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from ADEM Admin. Code Rule 335-14-2-Appendix I or the methods specified in Appendix G of the Corrective Measures Work Plan of permit application. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846 (latest edition), Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), Standard Methods for the Examination of Water and Wastewater (latest edition), the methods specified in Appendix G of the Corrective Measures Work Plan of the permit application, or an alternative method approved by ADEM. [ADEM Admin. Code Rule 335-14-8-.03(1)(j)1.]
- b. The Permittee shall maintain at the facility records of all monitoring information, including all calibration and maintenance records, records of all data used to prepare documents required by this permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit for a period of at least three (3) years from the date of the sample, measurement, report or record, or until corrective action is completed, whichever date is later. This period may be extended by the Department at any time and is automatically extended during the course of any unresolved enforcement action regarding this facility. [ADEM Admin. Code Rules 335-14-5-.05(5)(b) and 335-14-8-.03(1)(j)2.]
- c. The Permittee shall maintain at the facility records for all groundwater monitoring wells and piezometers and associated groundwater surface elevations throughout the post-closure care period. These records shall

include the surveyed location, surveyed elevation, surveyed elevation reference point, total depth, screened interval, construction details, well log, and all other pertinent information for each well and piezometer.

- d. Records of monitoring information shall include:
 - i. The dates, exact place, and times of sampling or measurements;
 - ii. The individuals who performed the sampling or measurements;
 - iii. The dates in which analyses were performed;
 - iv. The individuals who performed the analyses;
 - v. The analytical techniques or methods used; and,
 - vi. The results of such analyses.
- e. The following documents and information shall be maintained throughout the post-closure care period at the facility premises at Highway 55, Lockhart, Alabama.
 - i. Complete copy of this permit and the permit application.
 - ii. Operating record as required by ADEM Admin. Code Rule 335-14-5-.05(4) and this permit.
 - iii. Copies of all plans, reports, inspection schedules, inspection logs as required by ADEM Admin. Code Rule 335-14-5 and this permit.

11. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified in accordance with ADEM Admin. Code Rules 335-14-8-.02(2) and 335-14-8-.03(1)(k).

12. Reporting Requirements

a. Planned Changes

The Permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility and any solid waste management units identified under Part IV of this permit.

b. Anticipated Noncompliance

The Permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

c. Transfer of Permits

This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to ADEM Admin. Code Rule 335-14-8-.04(1) or ADEM Admin. Code Rule 335-14-8-.04(3)(a)1.(vii). Before transferring ownership or operation of the facility during its post-closure period, the Permittee shall notify the new owner or operator, in writing, of the requirements of ADEM Admin. Code Rules 335-14-5 and 335-14-8 and this permit.

d. Monitoring Reports

Monitoring results shall be reported at the intervals specified elsewhere in this permit.

e. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted to the Department no later than 14 calendar days following each schedule date.

f. Twenty-four Hour Reporting

i. The Permittee shall report to the Department any noncompliance with this permit that may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the circumstances. This report shall include, but is not limited to, the following:

- (I) Information concerning the release of any hazardous waste which may endanger public drinking water supplies; and,
- (II) Information concerning the release or discharge of any hazardous waste, or hazardous waste constituents, or of a fire or explosion at the facility, which could threaten the environment or human health outside the facility.

ii. The description of the occurrence and its cause shall include:

- (I) Name, address, and telephone number of the owner or operator;
- (II) Name, address, telephone number, and EPA Identification Number of the facility;
- (III) Date, time, and type of incident;

- (IV) Name and quantity of material(s) involved;
- (V) The extent of injuries, if any;
- (VI) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and,
- (VII) Estimated quantity and disposition of recovered material that resulted from the accident.

iii. A written submission shall also be provided within 5 calendar days of the time that the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance has been corrected, and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

g. Other Noncompliance

The Permittee shall report to the Department all instances of noncompliance not otherwise required by Permit Conditions I.C.12.b., I.C.12.e., or I.C.12.f. at the time any other reports required by this permit are submitted. The reports shall contain the information required by Permit Condition I.C.12.f.

h. Other Information

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information. In addition, upon request, the Permittee shall furnish to the Department any information related to compliance with this permit.

13. Certification of Construction

The Permittee may not commence treatment, storage or disposal of hazardous waste or contaminated media at any new or modified portion of the facility until the Permittee has submitted to the Department by certified mail or hand-delivery a letter (together with the certification by the construction quality assurance (CQA) officer required by ADEM Admin. Code R. 335-14-5-.02(10)(d) and any other certifications required by this permit or ADEM Admin. Code Rule 335-14) signed by the Permittee and a professional engineer registered in the State of Alabama stating that the facility has been constructed or modified in compliance with this permit where appropriate; and,

- a. The Department has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of this permit; or

- b. The Department has either waived the inspection or has not notified the Permittee, within 15 calendar days of the notification from the Permittee, of its intent to inspect. [ADEM Admin. Code Rule 335-14-8-.03(1)(I)2.]

14. Obligation for Corrective Action

The Permittee shall assure that all measures necessary to maintain and/or achieve compliance with all applicable requirements of ADEM Admin. Code Rules 335-14 are taken during the active life of the facility, and throughout the post-closure care period, corrective action period, and the term of this permit.

15. Extension Request

In the event that circumstances beyond the Permittee's control arise to prevent achievement of any deadline set forth by this permit, the Permittee may immediately, upon the occurrence thereof, request an extension by sending a written request to the Department explaining the need for the extension. The Department may, after consideration of the circumstances, grant the extension. Requests for extensions may require a permit modification pursuant to ADEM Admin. Code Rule 335-14-8-.04(2).

I.D. DEFINITIONS

For purposes of this permit, terms used herein shall have the same meaning as those in ADEM Admin. Code Rules 335-14-1, 335-14-2, 335-14-5, and 335-14-8, unless this permit specifically provides otherwise. Where terms are not defined in the regulations or this permit, a standard dictionary reference or the generally accepted scientific or industrial meaning of the term shall define the meaning associated with such terms.

"Area of concern" (AOC), for the purposes of this permit, includes any area having a probable release of a hazardous waste or hazardous constituent which is not from a solid waste management unit and is determined by the Department to pose a current or potential threat to human health or the environment. Such areas of concern may require investigations and remedial action as required under Section 3005(c)(3) of the Resource Conservation and Recovery Act (RCRA) and ADEM Admin. Code Rule 335-14-8-.03(3)(b)2. in order to ensure adequate protection of human health and the environment.

"Contamination," for the purposes of this permit, refers to the presence of any hazardous constituent in a concentration that exceeds the naturally occurring concentration of that constituent in the immediate vicinity of the facility (i.e., areas not affected by the facility).

"Extent of contamination," for the purposes of this permit, is defined as the horizontal and vertical area in which the concentrations of hazardous constituents in the environmental media being investigated are above detection limits or background concentrations indicative of the region, whichever is appropriate as determined by the Department.

"Hazardous constituents," for the purposes of this permit, are those substances listed in ADEM Admin. Code Rule 335-14-2-Appendix VIII and/or ADEM Admin. Code Rule 335-14-5-Appendix IX and include hazardous constituents released from solid waste, hazardous waste, and hazardous waste constituents that are reaction by-products.

"Land Use Controls," for the purposes of this permit is as defined by ADEM Admin. Code R. 335-5-1-.03.

"Method detection limit" (MDL), for the purposes of this permit, means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

"Mixed waste," for the purposes of this permit, means a solid waste that is a mixture of hazardous waste (as defined in ADEM Admin. Code Rule 335-14-2-.01(3)) and radioactive waste (as defined in 10 CFR 61.2). The radioactive component of mixed waste is subject to regulation by the Atomic Energy Act (AEA)/Nuclear Regulatory Commission (NRC). The non-radioactive chemically hazardous component of mixed waste is subject to regulation by the AHWMA and ADEM Admin. Code R. 335-14.

"Operating day," for the purposes of this permit, means any day on which hazardous waste is treated, stored, or disposed of in a unit. For example, each day that a hazardous waste storage unit contains hazardous waste is an operating day; as is each day that a disposal unit contains or receives hazardous waste, or each day that hazardous waste is treated in a treatment unit.

A "release," for the purposes of this permit, includes any spilling, leaking, pouring, emitting, emptying, discharging, injecting, escaping, leaching, pumping, or disposing into the environment of any hazardous waste or hazardous constituent.

"Solid waste management unit" (SWMU), for the purposes of this permit, includes any unit which has been used for the treatment, storage or disposal of solid waste at any time, irrespective of whether the unit is or ever was intended for the management of solid waste. RCRA-regulated hazardous waste management units are also solid waste management units. SWMUs include areas that have been contaminated by routine and systematic releases of hazardous waste or hazardous constituents, excluding one-time accidental spills that are immediately remediated and cannot be linked to solid waste management activities (e.g., product or process spills).

"Storm event," for the purposes of this permit, is defined as a 1-year, 24-hour storm event or rainfall which measures 1 inch or greater in 1 hour or less. Rainfall measurements may be taken at the site, or the closest official weather monitoring station may be used.

I.E. EXPIRATION AND CONTINUATION OF PERMIT

This permit and all conditions herein will remain in effect beyond this permit's expiration date if the Permittee has submitted a new application as required by Permit Condition I.C.2. and through no fault of the Permittee, the Department has not issued a new permit.

I.F. WASTE MINIMIZATION

1. Certification Requirements

Pursuant to ADEM Admin. Code Rule 335-14-5-.05(4)(b)9. the Permittee must certify, no less often than annually, that:

- a. The Permittee has a program in place to reduce the volume and toxicity of hazardous waste to the degree determined by the Permittee to be economically practicable; and,
- b. The proposed method of treatment, storage or disposal is the most practicable method available to the Permittee which minimizes the present and future threat to human health and the environment.

2. Recording Requirements

If Permit Condition I.G. is applicable, then the Permittee shall maintain copies of this certification in the facility operating record as required by ADEM Admin. Code Rule 335-14-5-.05(4).

I.G. COST ESTIMATES

1. The Permittee shall maintain detailed written cost estimates, in current dollars, at the location specified in Permit Condition I.C.10.e. and on file with ADEM in accordance with ADEM Admin. Code Rules 335-14-5-.08(3), (5), and (10).
2. All cost estimates must be updated annually as required by ADEM Admin. Code Rule 335-14-5-.08(3)(b), (5)(b), and (10)(b).
3. The cost estimate shall be maintained and submitted in the form designated by the Department.
4. The Permittee must update the cost estimate no later than 30 calendar days after the Department has approved a modification to the Closure Plan, Post-Closure Plan, or Corrective Action Plan, or any other plan required or referenced by this permit, if the change in the plan results in an increase in the amount of the cost estimate.

I.H. FINANCIAL ASSURANCE

1. The Permittee shall demonstrate continuous compliance with ADEM Admin. Code Rule 335-14-5-.08 by providing documentation of financial assurance in at least the amount that equals or exceeds the cost estimate. Changes in financial assurance mechanisms must be approved by the Department.

2. The Permittee shall submit itemized statements for all capital expenditures (for corrective action implementation) and a complete, revised post-closure cost estimate to the Department when requesting approval for a reduction in the financial assurance mechanism.

I.I. PERMIT MODIFICATIONS

The Permittee shall request a permit modification whenever changes in operating plans or facility design affect any plan (e.g. closure, groundwater monitoring, post-closure, or corrective action) required or referenced by this permit. The Permittee must submit a written request for a permit modification pursuant to the requirements of ADEM Admin. Code Rule 335-14-8-.04(2) at least 60 calendar days prior to the proposed change in facility design or operation.

I.J. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE DEPARTMENT

All reports, notifications, or other submissions that are required by this permit should be sent via certified mail or given to:

Chief, Land Division
Alabama Department of Environmental Management
P.O. Box 301463 (Zip 36130-1463)
1400 Coliseum Boulevard (Zip 36110-2059)
Montgomery, Alabama

and

Director, RCRA Division
US EPA Region-4
Atlanta Federal Center
61 Forsyth Street SW
Atlanta Georgia-30303-3104

PART II

POST-CLOSURE CARE

II.A. POST-CLOSURE CARE PERIOD

The post-closure care period shall extend for a period of 30 years from December 19, 1990, the date of initial permit issuance unless shortened or extended pursuant to ADEM Admin. Code Rule 335-14-5-.07(8). The post-closure care period shall automatically extend through the end of the compliance period specified in Part III of this permit.

II.B. POST-CLOSURE PROCEDURES AND USE OF PROPERTY

1. Post-Closure Activities

The Permittee shall conduct post-closure care activities, in accordance with Section 6.0 of the permit application and as required by ADEM Admin. Code Rules 335-14-5-.07 and 335-14-5-.14(11)(d), for each hazardous waste management unit listed in Table II.1.

2. Security

The Permittee shall comply with the security provisions of ADEM Admin. Code Rules 335-14-5-.02(5)(b) and (c) and as described in Section 6.3 of the permit application.

3. Disturbance of Closed Unit(s)

The Permittee shall not allow the disturbance of the integrity of the final cover, liners, any components of the containment system, or the function of the facility's monitoring systems during the post-closure care period for any unit identified in Table II.1.

4. The Permittee shall:

- a. Maintain the integrity and effectiveness of the final cover, including making repairs to the cap, as necessary, to correct the effects of settling, subsidence, erosion, or other events;
- b. Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of ADEM Admin. Code Rule 335-14-5-.06 and Part III of this permit;
- c. Prevent run-on and run-off from eroding or otherwise damaging the final cover; and,
- d. Protect and maintain surveyed benchmarks used in complying with the surveying and recordkeeping requirements of ADEM Admin. Code Rule 335-14-5-.14(10).

- e. Protect and maintain the paired piezometers across the slurry wall and French drain system inside as well as outside the slurry wall to control the groundwater head difference.

II.C. INSPECTIONS

- 1. The Permittee shall inspect the components, structures, and equipment at the site in accordance with the inspection schedule as described in Section 6.1 of the permit application, the post-closure care plan as described in Section 6.0 of the permit application, and as required by ADEM Admin. Code Rule 335-14-5-.07.

- 2. Monitoring and Inspection

The Permittee shall inspect the closed hazardous waste management unit(s) listed in Table II.1 at least monthly and after storms to detect any evidence of deterioration or improper operation as described in Section 6.1 of the permit application and as required under ADEM Admin. Code Rules 335-14-5-.07 and 335-14-5-.14. The inspections shall specifically include evaluation of the following items:

- a. Integrity of the final cover (erosion, ponding, subsidence, cracking, etc.);
- b. Growth and stabilization of vegetative cover;
- c. Run-on and run-off control system;
- d. Groundwater monitoring wells;
- e. Survey benchmarks, and,
- f. Stormwater collection trenches around the perimeter of the cap for debris and sediment buildup.

TABLE II.1
POST-CLOSURE CARE UNITS

UNIT NAME	UNIT DESCRIPTION	CLOSED-IN-PLACE CAPACITY (QUANTITY)	DESCRIPTION OF UNIT*	LOCATION OF UNIT*
Pond 1	Surface Impoundment	50000 cft**	Section 3.2	Figure 3.2
Pond 2	Surface Impoundment	84000 cft	Section 3.2	Figure 3.2
Pond 3	Surface Impoundment	240482 cft	Section 3.2	Figure 3.2

*Location in permit application containing description (text) and location (figure) of unit.

**cubic feet

PART III

GROUNDWATER MONITORING AND CORRECTIVE ACTION

III.A. REQUIRED PROGRAM(S)

1. Groundwater monitoring shall consist of the General Groundwater Monitoring Program of Permit Condition III.B. and the Corrective Action Monitoring Program contained in Permit Condition III. E.
2. The Permittee shall continue groundwater monitoring for Pond-2 and Pond-3 and commence groundwater monitoring for Pond-1 as required by this permit not later than 180 calendar days after completion of corrective measures at Pond-1.

III.B. GENERAL GROUNDWATER MONITORING PROGRAM

1. Well Location, Installation and Construction

The Permittee shall install and/or maintain a groundwater monitoring system to comply with the requirements of ADEM Admin. Code Rules 335-14-5-.06(8), 335-14-5-.06(9), 335-14-5-.06(10), and 335-14-5-.06(11) as applicable and as specified below:

- a. The Permittee shall maintain all groundwater monitoring wells at the facility as identified in Table III.1. of this permit, at the locations specified on Figure 3.2 of the permit application, and any other groundwater monitoring wells specified by Permit Condition III.B.1.d. and III.B.1.e.
 - i. All groundwater monitoring wells shall be maintained in accordance with the plans and specifications presented in Section 5 of the permit application and in accordance with ADEM Admin. Code Rule 335-14-5-.06.
 - ii. A groundwater monitoring well shall not be removed from any monitoring program specified in this permit without an approved permit modification pursuant to Permit Condition I.I.
 - iii. If a groundwater monitoring well is damaged, the Permittee shall immediately notify the Department in writing, which includes a description of the well repair activities to be conducted. The well repair procedures must be approved by the Department prior to implementation. Within 30 calendar days after the well is repaired, the Permittee shall submit a written notification to the Department that the well repair activities were conducted in accordance with the approved procedures.
 - iv. If a groundwater monitoring well is deleted from the monitoring program(s) required by this permit in accordance with Permit Conditions III.B.1.a.ii. and I.I., it shall be abandoned within 90 calendar days after deletion using procedures to be approved by the Department. Within 30 calendar days after the well is abandoned, the Permittee shall submit a

written notification to the Department that the well abandonment activities were conducted in accordance with the approved procedures.

- b. Groundwater monitoring wells MW-2A, MW-3A, MW-4A, MW-30A, MW-35, and MW-37 shall define the point of compliance for the entire facility.
- c. The Permittee shall maintain groundwater monitoring well(s) MW-7 and MW-13 as the background monitoring well(s) for the entire facility as specified in Groundwater Monitoring Plan (Appendix G) of the Corrective Measures Work Plan of the permit application.
- d. The Permittee shall install and maintain additional groundwater monitoring wells as necessary to assess changes in the rate and extent of any plume of contamination or as otherwise deemed necessary to maintain compliance with ADEM Admin. Code Rules 335-14-5-.06(6), 335-14-5-.06(8), 335-14-5-.06(9), 335-14-5-.06(10), and 335-14-5-.06(11), as applicable. A plan in the form of a permit modification request specifying the design, location and installation of any additional monitoring wells should be submitted to the Department within 90 calendar days prior to installation which, at a minimum, shall include:
 - i. Well construction techniques including casing depths and proposed total depth of well(s);
 - ii. Well development method(s);
 - iii. A complete description of well construction materials;
 - iv. A schedule of implementation for construction; and,
 - v. Provisions for determining the lithologic characteristics, hydraulic conductivity, grain size distribution, and porosity for the applicable aquifer unit(s) at the location of the new well(s).
- e. The Permittee shall install the replacement well for piezometer PZ-7 within 180 calendar days after the effective date of this permit. The well construction and location will follow the specifications shown in section 7.2 of the permit application. Prior to the installation of these wells, and within 30 calendar days after the effective date of this permit, the Permittee shall submit the information required in Permit Condition III.B.1.d. for each well to be installed. After the installation of these wells is completed, and within 180 calendar days after the effective date of this permit, the Permittee shall submit a report to the Department which includes the surveyed location and elevation, surveyed elevation reference point, total depth, screened interval, well log, and other pertinent information for each well installed. All location and elevation data shall be surveyed by a professional surveyor licensed in the state of Alabama. Elevation data shall be recorded and reported as mean sea level (MSL) and referenced to an appropriate National Geodetic Vertical Datum (NGVD) bench mark. Location data shall include latitude and longitude.

- f. The Permittee shall abandon the wells MW-21 using procedures to be approved by the Department, within 90 calendar days after the effective date of this permit. After the abandonment of these wells is completed, and within 180 calendar days after the effective date of this permit, the Permittee shall submit a report to the Department which includes a detailed description of the well abandonment activities conducted.

2. General Groundwater Monitoring Requirements

a. Groundwater Surface Elevations

- i. The Permittee shall determine the groundwater surface elevation from all monitoring wells listed in Table III.1 of this permit at least semi-annually and each time a sampling event is conducted. The results of these determinations should be submitted in accordance with Permit Condition III.B.6. Elevation data should be recorded and reported as mean sea level (MSL) and referenced to an appropriate NGVD benchmark.
 - ii. The Permittee shall determine the groundwater surface elevation from all existing monitoring wells on site and off site before initiating the corrective measures described in Corrective Measures Work Plan.
- b. The Permittee shall determine the groundwater flow rate and direction in the underlying aquifer(s) at least annually and submit the results in accordance with Permit Condition III.B.6.
 - c. The Permittee shall determine background concentrations of hazardous constituents and other chemical parameters required to be monitored by this permit in accordance with Section 7.2 of the permit application and ADEM Admin. Code Rule 335-14-5-.06(8)(g).

3. Groundwater Protection Standard

- a. The groundwater protection standard, as required under ADEM Admin. Code Rule 335-14-5-.06(3), shall consist of Table III.3 of this permit which lists the hazardous constituents and their respective concentration limits.
- b. The groundwater protection standard applies to all hazardous waste or hazardous constituent releases as deemed appropriate by the Department to protect human health and the environment.

4. Compliance Period

- a. The compliance period, during which the groundwater protection standard specified in Permit Condition III.B.3. applies, shall begin at the time of the first sampling event of the compliance monitoring program (Permit Condition III.D.), or the corrective action monitoring program (Permit Condition III.E.), whichever is earlier.

- b. The compliance period shall continue (after beginning pursuant to Permit Condition III.B.4.a.) until the groundwater protection standard as defined by Permit Condition III.B.3.a. has not been exceeded for a period of three consecutive years.
- c. If the Permittee is engaged in a corrective action program pursuant to Permit Condition III.E., then the compliance period shall continue as required by ADEM Admin. Code Rule 335-14-5-.06(7)(c) until the groundwater protection standard has not been exceeded for a period of three consecutive years after corrective action has been terminated and this permit has been modified, in accordance with Permit Condition I.I., to implement a compliance monitoring program pursuant to Permit Condition III.D. or a detection monitoring program pursuant to Permit Condition III.C., as required by ADEM Admin. Code Rule 335-14-5-.06(11)(f).

5. Sampling and Analysis Procedures

The Permittee shall use the following techniques and procedures when obtaining and analyzing samples from the groundwater monitoring wells described in Permit Condition III.B.1. to provide a reliable indication of the quality of the groundwater as required under ADEM Admin. Code Rules 335-14-5-.06(8)(d), (e), and (g):

- a. Samples shall be collected, preserved, and shipped (when shipped off-site for analysis) in accordance with the procedures specified in Appendix G of the Corrective Measure Work Plan of the permit application.
- b. Samples shall be analyzed according to the procedures specified in Appendix G of the Corrective Measure Work Plan of the permit application, the most recent edition of SW-846 or other appropriate methods approved by the Department. Analytical method detection limits shall be less than, or equal to, the concentration limits specified in Table III.3.
- c. Samples shall be tracked and controlled using the chain-of-custody procedures specified in Appendix G of the Corrective Measures Work Plan of the permit application.
- d. Statistical analyses used to evaluate the groundwater monitoring data shall be as described in Appendix G of the Corrective Measure Work Plan of the permit application and ADEM Admin. Code Rule 335-14-5-.06(8)(h).
- e. All samples taken in accordance with this permit shall not be filtered prior to analysis.

6. Recordkeeping and Reporting

- a. The Permittee shall keep and maintain all monitoring, testing, and analytical data obtained in accordance with Permit Conditions III.B., III.C., III.D., and III.E. as required by Permit Condition I.C.10.
- b. The Permittee shall submit to the Department a written report to include all analytical sampling data, established background values, statistical evaluations, groundwater elevations, associated potentiometric maps, and

the annual groundwater flow rate and direction determinations. The analytical method and the method detection limit (MDL) for each constituent must be integrated into all reports of analysis. The report shall be submitted within 90 calendar days after the first sampling event and on a semi-annual basis thereafter. Copies of this report shall be kept at the facility in accordance with Permit Conditions I.C.10.c. and I.C.10.e.

- c. The Permittee shall submit progress reports to the Department describing implementation of groundwater monitoring and/or corrective action activities at the site as required by Part III of this permit on a quarterly basis. The first progress report shall be submitted to the Department within 90 calendar days after the effective date of this permit. The progress reports shall continue until such time as the required monitoring and/or corrective action systems and activities required by this permit are fully constructed and operational. In the event that additional monitoring and/or corrective action requirements are imposed through a permit modification, the quarterly reporting requirement shall resume, commencing upon the effective date of the permit modification and continuing until the required monitoring and/or corrective action systems and activities are again fully constructed and operational.

III.C. DETECTION MONITORING PROGRAM (RESERVED)

III.D. COMPLIANCE MONITORING PROGRAM (RESERVED)

III.E. CORRECTIVE ACTION MONITORING PROGRAM

The requirements of this Condition are applicable to Pond 1, Pond 2 and Pond 3. Except as specified otherwise in this permit, the Corrective Action Monitoring Program shall be implemented in accordance with Appendix G of the Corrective Measures Work Plan, Section 7.2 of the permit application and ADEM Admin. Code Rule 335-14-5-.06(11).

1. Monitoring Systems

In addition to the point of compliance and background well monitoring systems identified in Permit Conditions III.B.1.b. and III.B.1.c., the Permittee shall:

- a. Maintain groundwater monitoring wells MW-10, MW-12, MW-14, MW-15, MW-21, MW-22, MW-32, and MW-33 as boundary wells for the entire facility as specified in Table III.1 of this permit and as shown on Figure 3.2 of the permit application.
- b. Maintain groundwater monitoring wells MW-9, MW-31A, MW-34, MW-35, MW-36, MW-37, PZ-11, PZ-17, and PZ-7 as effectiveness wells as specified in Table III.1 of this permit and as shown on Figure 3.2 of the permit application.

- c. Maintain wells RW-7, RW-8, RW-9, RW-10, RW-11, and RW-12 as recovery wells as specified in Table III.1 of this permit and as shown on Figure 3.2 of the permit application.
- d. Maintain wells MW-2A, MW-3A, MW-4A, MW-30A, MW-35, and MW-37 as point of compliance wells as specified in Table III.1 of this permit and as shown on Figure 3.2 of the permit application.

2. Corrective Action Program

- a. The Permittee shall conduct a Corrective Action Program, as described in Section 7.2 of the permit application, to remove or treat in place all hazardous constituents that exceed their respective groundwater protection standards as described in Table III.3 of this permit at the point of compliance, between the point of compliance and the down-gradient facility property boundary, and beyond the facility boundary in accordance with ADEM Admin. Code Rule 335-14-5-.06(11)(e)2.
- b. Pursuant to ADEM Admin. Code Rules 335-14-5-.06(11)(c) and 335-14-5-.06(11)(e)3., the Permittee shall continue to implement the corrective action program as described in Section 7.2 of the permit application within 120 calendar days after the effective date of this permit.
- c. The Permittee shall handle/treat groundwater in accordance with Section 7.2 of the permit application and with the applicable requirements of National Pollutant Discharge Elimination System (NPDES), State Indirect Discharge (SID) permit number(s) AL0066222 and IU 332000023 issued by the Department.

3. Monitoring Requirements

In addition to the general groundwater monitoring requirements specified in Permit Condition III.B.2, the Permittee shall:

- a. Sample wells MW-7 and MW-8 and analyze for PCBs, dioxins, and furans on a semi-annual basis beginning within 120 calendar days of the effective date of this permit and continuing for a two year period (four monitoring events). If MW-8 is abandoned due to the implementation of corrective measures, MW-37 should be sampled in its place. The Department will evaluate the need for further monitoring upon receipt and review of the data. If further monitoring is determined to be appropriate, this permit will be modified accordingly.
- b. Sample all background, point of compliance, effectiveness, and boundary monitoring wells shown in Table III.1 of this permit and analyze for the constituents listed in Table III.3 of this permit on a semi-annual basis beginning within 120 calendar days of the effective date of this permit and continuing through the end of the compliance period with the exception of PCBs, dioxins and furans.
- c. Sample all background, point of compliance, effectiveness, and boundary monitoring wells shown in Table III.1 of this permit and analyze for

temperature (degrees F or C), specific conductance (Mhos/cm), and pH (standard units) each time the well is sampled. The data obtained should be submitted as raw data in the reports required by Permit Condition III.B.6.

- d. When evaluating the monitoring results to determine the effectiveness of the corrective measures, in accordance with Permit Condition III.E.4., the Permittee shall:
 - i. Determine if the corrective action system effectively addresses the entire plume of contamination;
 - ii. Determine if the concentration of the hazardous constituents are decreasing (pH increasing or decreasing toward neutrality, as applicable) in the effectiveness wells specified in Permit Condition III.A.1.;
 - iii. Determine if hazardous waste or hazardous constituents are being released into the environment; and,
 - iv. Determine if hazardous constituents have been detected in the boundary wells specified in Permit Condition III.A.1.

4. Reporting and Response Requirements

In addition to the recordkeeping and reporting requirements specified in Permit Condition III.B.6.:

- a. The Permittee shall report the effectiveness of the corrective action semi-annually, as required under ADEM Admin. Code Rule 335-14-5-.06(11)(g). These reports shall be submitted within 60 calendar days of each semi-annual anniversary of this permit after corrective action is initiated and continue until corrective action is completed. The Permittee must provide data from groundwater monitoring along with an analysis of that data and any conclusions regarding the effectiveness of the program in accordance with Permit Condition III.E.3.d. If the analysis of the data warrants any change to the corrective action program, the Permittee must include these revisions in the semi-annual report which will be followed up within 90 calendar days with an application for permit modification in accordance with Permit Condition I.I.
- b. If corrective action is terminated under Permit Condition III.B.4.c., the Permittee must sample all background, point of compliance, effectiveness and boundary sampling locations for the compounds found in ADEM Admin. Code Rule 335-14-5-Appendix IX. Based upon the results, the Permittee may petition the Department, in accordance with Permit Condition I.I., for a permit modification to implement either a detection monitoring program or a compliance monitoring program.

TABLE III.1
MONITORING WELL DESIGNATIONS

WELL NUMBER	WELL TYPE*	WELL LATITUDE	WELL LONGITUDE	UNIT(S) MONITORED	WELL DEPTH (ft)	GROUND ELEVATION (ft. MSL)	TOP-OF-RISER ELEVATION (ft. MSL)	SCREENED INTERVAL (ft.)	MONITORED ZONE
MW-7	BKG	31° 00' 19.1291"	86° 20' 41.2286"	Entire Facility	29.71	272.44	275.35	10	Unconfined
MW-13	BKG	31° 00' 19.1289"	86° 20' 41.3595"	Entire Facility	69.74	272.36	275.3	10	Confined
SW-1	BKG	SL		Entire Facility					Surface Water
MW-9	EFF	31° 00' 19.1932"	86° 20' 46.7658"	Pond 2	24.7	247.82	250.52	10	Unconfined
MW-33	EFF	31° 00' 22.87088"	86° 20' 46.9900"	Pond 1	22.76	249.80	253.06	15	Unconfined
MW-36	EFF	31° 00' 20.8760"	86° 20' 42.7020"	Pond 1	21.42	271.80	275.15	15	Unconfined
MW-38	EFF	31° 00' 25.9160"	86° 20' 45.7360"	Pond 1	21.42	258.88	261.53	15	Unconfined
MW-39	EFF	31° 00' 23.8440"	86° 20' 46.1480"	Pond 1	25.29	251.76	253.94	15	Unconfined
MW-40	EFF	31° 00' 23.0130"	86° 20' 46.2130"	Pond 1	26.90	250.51	253.29	10	Unconfined
MW-41	EFF	31° 00' 21.3570"	86° 20' 47.2320"	Pond 2	24.85	249.55	252.24	10	Unconfined
PZ-7	EFF	31° 00' 17.8048"	86° 20' 45.9993"	Pond 3	12.28	246.71	248.99	2.5	Unconfined
MW-3A	POC	31° 00' 18.4396"	86° 20' 43.8990"	Pond 2 and 3	18.55	262.94	263.99	10	Unconfined
MW-4A	POC	31° 00' 16.2464"	86° 20' 43.0515"	Pond 2 and 3	19.4	263.55	263.95	10	Unconfined
MW-30A	POC	31° 00' 24.7986"	86° 20' 44.8960"	Pond 1	30.31	259.63	262.27	25	Unconfined
MW-42	EFF	31° 00' 20.2340"	86° 20' 45.3160"	Pond 1	25	265.57	268.15	15	Unconfined
MW-43	EFF	31° 00' 20.9790"	86° 20' 44.4470	Pond 1	25.42	251.10	253.59	15	Unconfined
MW-10	BDY	31° 00' 16.0995"	86° 20' 45.5388"	Entire Facility	19.29	245.4	247.59	10	Unconfined
MW-12	BDY	31° 00' 19.5601"	86° 20' 48.2697"	Entire Facility	14.73	248.36	250.73	10	Unconfined
MW-14	BDY	31° 00' 16.4021"	86° 20' 44.6917"	Entire Facility	48.21	246.68	248.99	10	Confined
MW-15	BDY	31° 00' 19.4781"	86° 20' 45.2851"	Entire Facility	46.6	249.62	252.22	10	Confined
MW-22	BDY	31° 00' 16.3306"	86° 20' 47.1028"	Entire Facility	27.41	247.82	250.56	10	Unconfined

SW-2	EFF	SL		Entire Facility					Surface Water
SW-3	EFF	SL		Entire Facility					Surface Water
RW-7	REC	31° 00' 20.6559"	86° 20' 45.4848"	Pond 2 and 3	21.98	251.42	253.20	4.00	Unconfined
RW-8	REC	31° 00' 19.5524"	86° 20' 45.6839"	Pond 2 and 3	Not Available	248.89	250.81	Not Available	Unconfined
RW-9	REC	31° 00' 18.5983"	86° 20' 46.0490"	Pond 2 and 3	22.16	246.80	248.76	4.00	Unconfined
RW-10	REC	31° 00' 17.1918"	86° 20' 45.7009"	Pond 2 and 3	22.50	245.93	247.93	4.00	Unconfined
RW-11	REC	31° 00' 16.3363"	86° 20' 45.2240"	Pond 2 and 3	22.71	244.86	246.87	5.20	Unconfined
RW-12	REC	31° 00' 15.4342"	86° 20' 44.6850"	Pond 2 and 3	22.19	245.98	247.97	4.00	Unconfined
RW-14	EFF	31° 00' 20.8800"	86° 20' 45.6800"	Pond 1, 2, and 3	19.10	251.00	250.5		Unconfined

* Well Type:

POC - Point of Compliance Wells

EFF - Effectiveness Monitoring Wells

BKG - Background Wells

BDY - Boundary Monitoring Wells

REC - Recovery Well

SL –Surface water sampling location as per Figure 3-1 of the revised corrective action plan dated December 30, 2009.

TABLE III.2**GROUNDWATER QUALITY MONITORING CONSTITUENTS***

HAZARDOUS CONSTITUENT	UNIT
Acenaphthylene	Ponds 1, 2 and 3
Acenaphthene	Ponds 1, 2 and 3
Benzo(a)anthracene	Ponds 1, 2 and 3
Benzo(a)pyrene	Ponds 1, 2 and 3
Benzo(k)fluoranthene	Ponds 1, 2 and 3
Benzo(b)fluoranthene	Ponds 1, 2 and 3
Carbazole	Ponds 1, 2 and 3
Chrysene	Ponds 1, 2 and 3
Creosote	Ponds 1, 2 and 3
4-chloro-3-methylphenol	Ponds 1, 2 and 3
2-chlorophenol	Ponds 1, 2 and 3
Phenanthrene	Ponds 1, 2 and 3
Dibenz(a,h)anthracene	Ponds 1, 2 and 3
2,4-dimethylphenol	Ponds 1, 2 and 3
2,4-dinitrophenol	Ponds 1, 2 and 3
Fluoranthene	Ponds 1, 2 and 3
Indeno(1,2,3-cd)pyrene	Ponds 1, 2 and 3
2-methylnaphthalene	Ponds 1, 2 and 3
Naphthalene	Ponds 1, 2 and 3
Pentachlorophenol	Ponds 1, 2 and 3
Phenol	Ponds 1, 2 and 3
2,3,4,6-Tetrachlorophenol	Ponds 1, 2 and 3
2,4,5-trichlorophenol	Ponds 1, 2 and 3
2,4,6-trichlorophenol	Ponds 1, 2 and 3
Benzene	Ponds 1, 2 and 3
Ethylbenzene	Ponds 1, 2 and 3
Toluene	Ponds 1, 2 and 3
Styrene	Ponds 1, 2 and 3
Xylenes	Ponds 1, 2 and 3
Arsenic	Ponds 1, 2 and 3
Chromium	Ponds 1, 2 and 3
Lead	Ponds 1, 2 and 3
Nitrate	Ponds 1, 2 and 3

TABLE III.3
GROUNDWATER PROTECTION STANDARD

HAZARDOUS CONSTITUENT	UNIT*	CONCENTRATION LIMIT (µg/L)
Acenaphthylene	Ponds 1, 2 and 3	93.9
Acenaphthene	Ponds 1, 2 and 3	37
Benzo(a)anthracene	Ponds 1, 2 and 3	0.092
Benzo(a)pyrene	Ponds 1, 2 and 3	0.2**
Benzo(k)fluoranthene	Ponds 1, 2 and 3	0.92
Benzo(b)fluoranthene	Ponds 1, 2 and 3	0.092
Carbazole	Ponds 1, 2 and 3	3.4
Chrysene	Ponds 1, 2 and 3	9.2
Creosote	Ponds 1, 2 and 3	See note-1
4-chloro-3-methylphenol	Ponds 1, 2 and 3	MDL
2-chlorophenol	Ponds 1, 2 and 3	3.0
Phenanthrene	Ponds 1, 2 and 3	46.9
Dibenz(a,h)anthracene	Ponds 1, 2 and 3	0.0092
2,4-dimethylphenol	Ponds 1, 2 and 3	73
2,4-dinitrophenol	Ponds 1, 2 and 3	7.3
Fluoranthene	Ponds 1, 2 and 3	150
Indeno(1,2,3-cd)pyrene	Ponds 1, 2 and 3	0.092
2-methylnaphthalene	Ponds 1, 2 and 3	6.26
Naphthalene	Ponds 1, 2 and 3	0.62
Pentachlorophenol	Ponds 1, 2 and 3	1**
Phenol	Ponds 1, 2 and 3	1100
2,3,4,6-Tetrachlorophenol	Ponds 1, 2 and 3	110
2,4,5-trichlorophenol	Ponds 1, 2 and 3	360
2,4,6-trichlorophenol	Ponds 1, 2 and 3	0.36
Benzene	Ponds 1, 2 and 3	5**
Ethylbenzene	Ponds 1, 2 and 3	700**
Toluene	Ponds 1, 2 and 3	1000**
Styrene	Ponds 1, 2 and 3	100**
Xylenes	Ponds 1, 2 and 3	10000**
Arsenic	Ponds 1, 2 and 3	10**
Chromium	Ponds 1, 2 and 3	100**
Lead	Ponds 1, 2 and 3	15**
Nitrate	Ponds 1, 2 and 3	10000**
Sulfide	Ponds 1, 2 and 3	MDL

* Identifies the unit(s) at which the given constituent must be monitored.

** MCL

*** ARBCA Standard

MDL Method Detection Limit (MDL) must not exceed established MCL regulatory levels.

Note-1: In analyzing for Carbazole and Phenanthrene; if these constituents are present in a ratio between 5:1 and 1.4:1, respectively, it shall be considered that Creosote is present.

PART IV

SOLID WASTE MANAGEMENT UNIT IDENTIFICATION AND EVALUATION

Error! Reference source not found..A. APPLICABILITY

The Conditions of this Part apply to:

1. The solid waste management units (SWMUs) and areas of concern (AOCs) identified in Table **Error! Reference source not found..1**, which require investigation and/or remediation;
2. The SWMUs identified in Table **Error! Reference source not found..2**, which require no further investigation under this permit at this time;
3. Any additional SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means; and,
4. Contamination beyond the facility boundary, if applicable. The Permittee shall implement corrective actions beyond the facility boundary where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the Department that, despite the Permittee's best efforts, as determined by the Department, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for completion of such off-site corrective action will be required.

Error! Reference source not found..B. NOTIFICATION AND ASSESSMENT REQUIREMENTS FOR NEWLY IDENTIFIED SWMUs AND AOCs

1. The Permittee shall notify the Department in writing, within 15 calendar days of discovery, of any additional AOCs as described under Permit Condition **Error! Reference source not found..A.3**. The notification shall include, at a minimum, the location of the AOC and all available information pertaining to the nature of the release (*e.g.*, media affected, hazardous constituents released, magnitude of release, etc.). If the Department determines that further investigation of an AOC is required, the permit will be modified in accordance with ADEM Admin. Code Rule 335-14-8-.04(2).
2. The Permittee shall notify the Department in writing, within 15 calendar days of discovery, of any additional SWMUs as described under Permit Condition **Error! Reference source not found..A.3**.
3. The Permittee shall prepare and submit to the Department, within 90 calendar days of notification, a SWMU Assessment Report (SAR) for each SWMU identified under Permit Condition **Error! Reference source not found..B.2**. At a minimum, the SAR shall provide the following information:

- a. Location of unit(s) on a topographic map of appropriate scale such as required under ADEM Admin. Code Rule 335-14-8-.02(5)(b)19.
 - b. Designation of type and function of unit(s).
 - c. General dimensions, capacities and structural description of unit(s) (supply any available plans/drawings).
 - d. Dates that the unit(s) was operated.
 - e. Specification of all wastes that have been managed at/in the unit(s) to the extent available. Include any available data on hazardous constituents in the wastes.
 - f. All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include groundwater data, soil analyses, air, and/or surface water data).
4. Based on the results of the SAR, the Department shall determine the need for further investigations at the SWMUs covered in the SAR. If the Department determines that such investigations are needed, the Permittee shall initiate an investigation as outlined in Permit Condition **Error! Reference source not found..D.1** immediately upon receiving notification of the Department's determination.

Error! Reference source not found..C. NOTIFICATION REQUIREMENTS FOR NEWLY DISCOVERED RELEASES AT PREVIOUSLY IDENTIFIED SWMUs or AOCs

1. The Permittee shall notify the Department in writing of any newly discovered release(s) of hazardous waste or hazardous constituents discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, within 15 calendar days of discovery. Such newly discovered releases may be from SWMUs or AOCs identified in Permit Condition **Error! Reference source not found..A.2** or SWMUs or AOCs identified in Permit Condition **Error! Reference source not found..A.3** for which further investigation was not required.
2. If the Department determines that further investigation of the SWMUs or AOCs is needed, the Permittee shall initiate an investigation as outlined in Permit Condition **Error! Reference source not found..D.** immediately upon receiving notification of the Department's determination.

Error! Reference source not found..D. RCRA FACILITY INVESTIGATION (RFI)

1. The Permittee must perform a RCRA Facility Investigation (RFI) for any SWMU and AOC identified by the Department in accordance with Permit Conditions **Error! Reference source not found..A.1**, **Error! Reference source not found..B.4**, and **Error! Reference source not found..C.2**.
2. The RFI must completely identify the concentration of hazardous constituents released from each SWMU and AOC and fully delineate the area where such hazardous constituents have come to be located.

3. The RFI must fully characterize the nature and extent of contamination released from each SWMU or AOC under investigation.
4. The RFI must be performed in a manner consistent with the most recent edition of the Alabama Environmental Investigation and Remediation Guidance.
5. Except as provided by Permit Condition **Error! Reference source not found..D.6.**, the RFI must be completed within 180 days from the effective date of this permit, or, for SWMUs or AOCs identified pursuant to Permit Condition **Error! Reference source not found..B. and C.**, within 180 calendar days from the receipt of notification from the Department that a RFI is required. If, prior to the effective date of this permit, the Department has approved a work plan that includes a schedule for completing the RFI, the RFI shall be completed in accordance with the approved schedule.
6. RFI Schedule of Compliance
 - a. For RFI's expected to require greater than 180 days to complete, the Permittee may submit a schedule of compliance subject to Departmental approval/modification.
 - b. Submittal of a RFI Schedule of Compliance does not delay or otherwise postpone the Permittee's obligation to initiate the RFI.
 - c. The Schedule of Compliance must include:
 - i. A detailed narrative discussion which explains why the RFI cannot be completed within 180 days and;
 - ii. A detailed and chronological listing of milestones, with estimated durations, which provides sufficient information to track the progress of the investigation.
 - d. The RFI Schedule of Compliance shall be reviewed by the Department in accordance with Permit Condition **Error! Reference source not found..G.**
 - e. The Permittee shall complete the RFI in accordance with the approved RFI Schedule of Compliance.
7. RFI Progress Reports
 - a. For a RFI being conducted in accordance with an approved RFI Schedule of Compliance, the Permittee must submit progress reports on a monthly basis.
 - b. The RFI Progress Reports must include:
 - i. A description of the RFI activities completed during the reporting period;
 - ii. Summaries of any problems or potential problems encountered during the reporting period;

- iii. Actions taken to rectify problems;
- iv. Changes in relevant personnel;
- v. Projected work for the next reporting period;
- vi. Any proposed revisions to the RFI Schedule of Compliance. Modifications of the RFI Schedule of Compliance are subject to approval by the Department; and,
- vii. A summary of any data collected during the reporting period, including:
 - a. The location of each sampling point identified on a site map;
 - b. The concentration of each hazardous constituent detected at each sampling point;
 - c. Submittal of RFI Progress Reports, work plans, or other documents during the RFI does not alter the approved RFI Schedule of Compliance.

8. RFI Reports

- a. The Permittee shall prepare and submit to the Department a RFI Report within 60 days from the completion of investigation activities in accordance with the approved RFI Schedule of Compliance, if applicable.
- b. The RFI Report must provide a detailed description of all required elements of the investigation as described in the most recent edition of the Alabama Environmental Investigation and Remediation Guidance.
- c. The RFI Report shall be reviewed by the Department in accordance with Permit Condition Error! Reference source not found..G.

Error! Reference source not found..E. SELECTION OF CORRECTIVE MEASURES AND PERMIT MODIFICATION

- 1. The Permittee shall develop and submit to the Department a Corrective Measures Implementation (CMI) Plan for any areas of the Permittee's site where hazardous constituents have come to be located at concentrations exceeding those appropriate for the protection of human health and the environment. The CMI Plan must include all applicable elements of the proposed remedy pursuant to the most recent edition of the Alabama Environmental Investigation and Remediation Guidance.
- 2. The CMI Plan shall be submitted within 120 days following the submittal of a RFI Report indicating that hazardous constituents have come to be located at any area of the Permittee's facility, or beyond the facility, at concentrations exceeding those appropriate for the protection of human health and the

environment, or within 120 days following notification from the Department that a CMI Plan is required, whichever occurs earlier.

3. The CMI Plan shall be submitted along with a request for permit modification pursuant to ADEM Admin. Code R. 335-14-8-.04(2), and shall include any applicable fees pursuant to ADEM Admin. Code R. 335-1-6. This modification will serve to incorporate the proposed final remedy, including all procedures necessary to implement and monitor the remedy, into this permit.
4. Within 120 calendar days after this Permit has been modified in accordance with Permit Condition **Error! Reference source not found..E.3.**, the Permittee shall demonstrate financial assurance for completing the approved remedy.

Error! Reference source not found..F. INTERIM MEASURES (IM)

1. IM Work Plan(s)
 - a. Upon notification by the Department, the Permittee shall prepare and submit an Interim Measures (IM) Work Plan for any SWMU or AOC that the Department determines is necessary. IM are necessary in order to minimize or prevent further migration of contaminants and limit human and environmental exposure to contaminants while long-term corrective measures are evaluated and, if necessary, implemented. The IM Work Plan shall be submitted within 30 calendar days of such notification and shall include the elements listed in Permit Condition **Error! Reference source not found..F.1.b.** Such IM may be conducted concurrently with investigations required under the terms of this permit. The Permittee may initiate IM by submitting an IM Work Plan for approval and reporting in accordance with the requirements under Permit Condition **Error! Reference source not found..F.**
 - b. The IM Work Plan shall ensure that the IM are designed to mitigate any current or potential threat(s) to human health or the environment and is consistent with and integrated into any long-term solution at the facility. The IM Work Plan shall include: the IM objectives, procedures for implementation (including any designs, plans, or specifications), and schedules for implementation.
 - c. The IM Work Plan must be approved by the Department, in writing, prior to implementation. The Department shall specify the start date of the IM Work Plan schedule in the letter approving the IM Work Plan.
 - d. The IM Report shall be reviewed by the Department in accordance with Permit Condition **Error! Reference source not found..G.**
2. IM Implementation
 - a. The Permittee shall implement the IM in accordance with the approved IM Work Plan.
 - b. The Permittee shall give notice to the Department as soon as possible of any planned changes, reductions or additions to the IM Work Plan.

- c. Final approval of corrective action required under ADEM Admin. Code Rule 335-14-5-.06(12), which is achieved through IM, shall be in accordance with ADEM Admin. Code Rule 335-14-8-.04(2) and Permit Condition **Error! Reference source not found..E**.

3. IM Reports

- a. If the time required for completion of IM is greater than one year, the Permittee shall provide the Department with Progress Reports at intervals specified in the approved work plan. The Progress Reports shall, at a minimum, contain the following information:
 - i. A description of the portion of the IM completed;
 - ii. Summaries of any deviations from the IM Work Plan during the reporting period;
 - iii. Summaries of any problems or potential problems encountered during the reporting period;
 - iv. Projected work for the next reporting period; and,
 - v. Copies of laboratory/monitoring data.
- b. The Permittee shall prepare and submit the IM Report to the Department within 90 calendar days of completion of IM conducted under Permit Condition **Error! Reference source not found..F**. The IM Report shall, at a minimum, contain the following information:
 - i. A description of IM implemented;
 - ii. Summaries of results;
 - iii. Summaries of all problems encountered;
 - iv. Summaries of accomplishments and/or effectiveness of IM; and,
 - v. Copies of all relevant laboratory/monitoring data, etc. in accordance with Permit Condition I.C.10.

Error! Reference source not found..G. SUBMITTALS

- 1. All work plans, reports, schedules, and other documents ("submittals") required by this permit shall be subject to approval by the Department to assure that such submittals and schedules are consistent with the requirements of this Permit and with applicable regulations and guidance. The Permittee shall revise all submittals and schedules as directed by the Department.
- 2. The Department will review all submittals in accordance with the conditions of this permit. The Department will notify the Permittee in writing of any submittal that is disapproved, and the basis therefore. If the Department disapproves a submittal, the Department shall (1) notify the Permittee in writing of the submittal's deficiencies and specify a due date for submission of a revised

submittal, (2) revise the submittal and notify the Permittee of the revisions, or (3) conditionally approve the submittal and notify the Permittee of the conditions. Permit Condition **Error! Reference source not found.**H. shall apply only to submittals that have been disapproved and revised by the Department, or that have been disapproved by the Department, then revised and resubmitted by the Permittee, and again disapproved by the Department.

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3. All submittals shall be submitted within the time frame specified by the Department and in accordance with the approved schedule of compliance. Extensions of the due date for submittals may be granted by the Department based on the Permittee's demonstration that sufficient justification for the extension exists.
4. All submittals required by this permit shall be signed and certified in accordance with ADEM Admin. Code Rule 335-14-8-.02(2).
5. Two (2) copies of all submittals shall be provided by the Permittee to the Department, with one copy to EPA Region 4 in accordance with Permit Condition I.K.

Error! Reference source not found..H. DISPUTE RESOLUTION

Notwithstanding any other provision in this permit, in the event the Permittee disagrees, in whole or in part, with the Department's revision of a submittal or disapproval of any revised submittal required by this Part, the following may, at the Permittee's discretion apply:

1. In the event that the Permittee chooses to invoke the provisions of this section, the Permittee shall notify the Department in writing within 30 calendar days of receipt of the Department's revision of a submittal or disapproval of a revised submittal. Such notice shall set forth:
 - a. the specific matters in dispute;
 - b. the position the Permittee asserts should be adopted as consistent with the requirements of this permit;
 - c. the basis for the Permittee's position; and,
 - d. any matters considered necessary for the Department's determination.
2. The Department and the Permittee shall have additional 30 calendar days from the Department's receipt of the notification provided for in Permit Condition **Error! Reference source not found..H.1.** to meet or confer to resolve any disagreement.
3. In the event an agreement is reached, the Permittee shall submit and implement the revised submittal in accordance with and within the time frame specified in such agreement.
4. If agreement is not reached within the 30-day period, the Department will notify the Permittee in writing of his/her decision on the dispute, and the Permittee shall comply with the terms and conditions of the Department's decision in the dispute. For the purposes of this provision in this permit, the responsibility for making this decision shall not be delegated below the Land Division Chief.
5. With the exception of those conditions under dispute, the Permittee shall proceed to take any action required by those portions of the submission and of this permit that the Department determines are not affected by the dispute.

Table Error! Reference source not found..1

The following Solid Waste Management Unit(s) (SWMU) and/or Area(s) of Concern (AOC) numbers and descriptions correspond with those noted in the RCRA Facility Assessment (RFA) Report. Where discrepancies exist, the permit will take precedence.

List of SWMUs and AOCs which require investigation:

SWMU/AOC NUMBER	SWMU/AOC NAME	UNIT COMMENT	POTENTIALLY AFFECTED MEDIA
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None at this time.

Table Error! Reference source not found..2

The following Solid Waste Management Unit (SWMU) and/or Area of Concern (AOC) numbers and descriptions correspond with those noted in the RCRA Facility Assessment (RFA) Report. Where discrepancies exist, the permit will take precedence.

List of SWMUs and AOCs requiring no further action at this time:

SWMU/AOC NUMBER	SWMU/AOC NAME	UNIT COMMENT	POTENTIALLY AFFECTED MEDIA
SWMU 1	Treatment Cylinder Discharge Area	RFI Completed 1994, NFA per 1998 RFA	Soil
SWMU 3	Boiling Tanks	Removed from site	Soil
SWMU 5	Dripping areas in treated lumber storage yard	RFI Completed 1994, NFA per 1998 RFA	Soil and Surface Water
SWMU 6a	Facility Boiler #1	Removed from site	Soil
SWMU 6b	Facility Boiler #1	Removed from site	Soil
SWMU 6c	Facility Boiler #1	Removed from site	Soil
SWMU 7a	Boiler Ash Bin #1	Removed from site	Soil
SWMU 7b	Boiler Ash Bin #2	Removed from site	Soil
SWMU 8	Boiler Ash Pile	NFA per 1998 RFA	Soil
SWMU 9	Boiler Ash Roll-off Container	Removed from site	Soil
SWMU 11	Main sump in Treatment Building	capped as part of corrective measures	Soil and Surface Water
SWMU 12	Treatment Cylinder Sump	capped as part of corrective measures	Soil
SWMU 13	CCA floor Sweepings Satellite Accumulation Area	capped as part of corrective measures	Soil
SWMU 14a	Effluent Water Tank # 1	Removed from site	Soil
SWMU 14b	Effluent Water Tank # 2	Removed from site	Soil
SWMU 15a	Groundwater Recovery Separation Tank # 1	Removed from site	Soil
SWMU 15b	Groundwater Recovery Separation Tank # 2	Removed from site	Soil
SWMU 15c	Groundwater Recovery Separation Tank # 3	Removed from site	Soil
SWMU 15d	K001 Sludge Accumulation	capped as part of corrective measures	Soil
SWMU 15e	Light Oil Pan	capped as part of corrective measures	Soil
SWMU 15f	Groundwater Recovery system Sump	capped as part of corrective measures	Soil and Surface Water
SWMU 15g	Groundwater Recovery System Collection Tank	capped as part of corrective measures	Soil and Surface Water
SWMU 16	Equipment Wash Water Filter	Removed from site	Soil

SWMU/AOC NUMBER	SWMU/AOC NAME	UNIT COMMENT	POTENTIALLY AFFECTED MEDIA
SWMU 17	Used Oil Tank	Removed from site	Soil
SWMU 18	Former Treatment Cylinder Discharge pipe	NFA per 1998 RFA	Soil
SWMU 19	Former Location of Treatment Cylinder	Clean closed as part of corrective measures	
SWMU 20	Hazardous Waste Storage Unit	NFA per 1998 RFA	Soil
AOC A	Possible Teepee Burner Ash disposal area above outfall #2	CS Completed 1/10/2002	Soil and Surface Water
AOC B	Drainage ditch and creek area receiving outfall # 2 storm water discharges and seeps	CS Completed 1/10/2002	Soil
AOC C-1	Corroded pipe spill area, June-August 1997, near NW corner of GW recovery system fence	NFA per 1998 RFA	Soil
AOC C-2	Corroded pipe spill area, June-August 1997, 10 ft NE of pump house	NFA per 1998 RFA	Soil
AOC D-1	Area down slope of manhole (#1) between maintenance shop and last manhole before POTW overflow events January 6, and March 7-8, 1998	NFA per 1998 RFA	Soil and Surface Water
AOC D-2	Area down slope of last manhole (#2) before POTW overflow events January 6, and March 7-8, 1998	NFA per 1998 RFA	Soil and Surface Water
AOC E	Soil contamination from leak in outflow pipe of separation Tank # 1	NFA per 1998 RFA	Soil

RFA RCRA Facility Assessment
 RFI RCRA Facility Investigation
 NFA No Further Action
 CS Confirmatory Sampling

Table Error! Reference source not found..3

The following Solid Waste Management Unit (SWMU) and/or Area of Concern (AOC) numbers and descriptions correspond with those noted in the RCRA Facility Assessment (RFA) Report. Where discrepancies exist, the permit will take precedence.

List of SWMUs and AOCs regulated by Parts II, III, IV, and V of this permit.

SWMU/AOC NUMBER	SWMU/AOC NAME	UNIT COMMENT	POTENTIALLY AFFECTED MEDIA
SWMU 2a	Pond 1	Closed with waste in place in 2004	Soil and Groundwater
SWMU 2b	Pond 2	ADEM approved Closure in 1988.	Soil and Groundwater
SWMU 2c	Pond 3	ADEM approved Closure in 1988.	Soil and Groundwater

PART V**CORRECTIVE MEASURES IMPLEMENTATION****V.A. APPLICABILITY**

The conditions of this Part apply to SWMUs and AOCs identified in Table V.1.

V.B. GENERAL CONDITIONS

1. The Permittee is required to perform corrective measures for the SWMUs and AOCs identified in Condition V.A. The approved remedy for these defined units, waterway areas, or land parcels, includes any and all actions set forth in this permit and in the approved Interim Measures Plans, Corrective Measures Studies (CMSs), and Corrective Measures Implementation (CMI) Plans approved by the Department, as noted below:

Applicable SWMU/AOC	CMS/CMI	Approval Date
AOC F	In-situ stabilization of contaminated source area	Date of permit modification

2. Remedial Cleanup Levels

Upon approval, pursuant to Condition IV.E., of a CMI Plan designating applicable cleanup level(s), the cleanup level(s) for the areas specific to the CMI Plan will be deemed to be a condition of this permit.

3. Groundwater Monitoring and Remediation

Where required pursuant to Permit Conditions V.B.1. and V.C. of this permit, the Permittee shall comply with the general groundwater monitoring requirements of Part III of this permit.

4. Land Use Controls

Where required pursuant to Permit Conditions V.B.1. and V.C. of this permit, the Permittee shall establish appropriate land use controls to achieve protection of human health and the environment. The Permittee shall comply with Conditions V.B.5. and V.B.6. of this permit when implementing corrective measures requiring land use controls. Where the owner of such property will not allow a deed restriction to be imposed, the Permittee shall notify the Department within 14 days of receipt of written notification by the property owner. In such cases, the Department may allow the Permittee to propose an alternate

area-specific land use control, subject to the Department's review and approval.

5. Survey Plat

For corrective measures where residual concentrations of contaminants will remain in-place at levels greater than those appropriate for unrestricted land use, or for corrective measures that rely on land use controls, the Permittee must:

- a. Within 90 days following the effective date of a permit modification addressing remedy selection, submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Department, a survey plat indicating the location and dimensions of the SWMUs, AOCs, and capped or partially remediated areas with respect to permanently surveyed benchmarks, the locations of sampling points, and the concentrations of hazardous constituents detected. This plat must be prepared and certified by a professional land surveyor registered in the State of Alabama. The plat must be filed with the local zoning authority, or the authority with jurisdiction over local land use and must contain a note, prominently displayed, which states the Permittee's obligation to limit the property to the specified non-residential uses.
- b. The survey plat must be maintained as described in Condition V.B.5.a. of this permit and in the CMS Report until the Permittee has demonstrated, to the satisfaction of the Department, that the levels of hazardous constituents in all contaminated media are within limits appropriate for unrestricted residential land uses.

6. Environmental Covenant

No later than the submission of the survey plat required in Condition V.B.5.b., the Permittee must:

- a. Record in the probate judges office of the county in which the property is located or a portion thereof an environmental covenant in accordance with ADEM Admin. Code R. 335-5 that will in perpetuity notify any potential purchaser of the property that:
 - i. The land is contaminated with hazardous constituents in concentrations that exceed unrestricted use standards;
 - ii. The use of the property is restricted by this permit for certain residential, municipal, or industrial purposes and may lead to an increased risk of exposure to hazardous constituents depending upon the activities initiated at the site. Such activities may yield an increased level of human health risk to the owner;

- iii. The potential purchaser or entity that desires to work in the contaminated area should notify the Permittee before mobilizing to the area covered by the land use control.
- b. Submit to the Department a certification, signed by the Permittee in accordance with Permit Condition I.C.11., that the environmental covenant specified in this part has been performed. This certification must include a copy of the document in which the notation has been placed.
- c. Maintain the environmental covenant described in Permit Condition V.B.6. until the Permittee has demonstrated, to the satisfaction of the Department, that the levels of hazardous constituents in all contaminated media are within limits appropriate for unrestricted land uses.
- d. Submit fees in accordance with ADEM Admin. Code R. 335-5-1-.06 to provide the Department with the funds required to implement the provisions of the Alabama Uniform Environmental Covenants Act.

7. Security

Security measures, where required by Conditions V.B.1. and V.C., of this permit will be conducted in accordance with ADEM Admin. Code R. 335-14-5-.02(5)(b)2.(ii) and as prescribed in the approved CMI Plan.

8. Inspection

Where corrective measures addressed in Conditions V.B.1. include provisions to cap in place or partially remediate properties or land areas, whether owned or not owned by the Permittee, the Permittee shall specify inspection protocols on a scheduled basis to ensure continued integrity of the remedy and to ensure that land use remains appropriately restricted per the deed notice established pursuant to Permit Condition V.B.6. Inspection provisions shall be as prescribed in the approved CMI Plan.

V.C. AREA SPECIFIC CONDITIONS (RESERVED)

V.D. CORRECTIVE MEASURES IMPLEMENTATION (CMI) REPORTS

1. CMI Progress Reports

If the time required to complete implementation of a specific set of corrective measures, as described in a given CMI Plan, is greater than 180 calendar days, the Permittee shall provide ADEM with progress reports according to the schedule approved by ADEM in the CMI Plan. The progress reports shall, at a minimum, contain the following information:

- a. A description of the portion of CMI Plan completed;
- b. Summaries of and deviations from the approved CMI Plan during the reporting period;
- c. Summaries of current and potential problems, including recommended solutions and alternatives as well as corrective actions undertaken;
- d. Any monitoring data (soil, air, dust, water) collected for any reason during the construction period for the purposes of monitoring potential for human and ecological exposure; and,
- e. Projected work for the next period and impacts to the approved schedule.

2. Final CMI Reports

Upon completion of construction of corrective measures systems, implementation of land use controls, interim remedial actions, or other short-term activities required by this permit and/or the approved CMI Plan, the Permittee shall submit to the Department a Final CMI Report containing, at a minimum, the following:

- a. A description of activities completed;
- b. For cap and cover remedies, as-built construction drawings representing the final in-place three-dimensional location of contaminated material. A plan view of the remediated areas shall be presented in addition to a cross section of the in-place capped areas;
- c. Hazardous waste manifests indicating the handling of any excavated material that has been shipped off-site to a Department approved, certified landfill;
- d. For remedies involving land use controls, a copy of the survey plat and notice to deed required by Condition V.B. of this permit;
- e. Summary of all Monitoring data (soil, air, dust, water) collected for any reason during the construction period for the purposes of monitoring potential for human and ecological exposure; and,
- f. Certification, prepared in accordance with ADEM Admin. Code Rule 335-14-8-02 (2)(d) by the Permittee and an independent professional engineer registered in the State of Alabama, that the corrective measures implementation phase (i.e., construction) required by this permit is complete and that the approved system and/or facilities are ready for operation in accordance with the intended design (i.e., CMI Plan).

3. Corrective Measures (CM) Effectiveness Reports

- a. For corrective measures that have been fully implemented and where the corrective measures system must operate for a period of time to achieve cleanup goals/levels, the Permittee shall submit CM Effectiveness Reports on a semi-annual basis, unless otherwise approved by the Department, beginning 180 days following the Department's approval of the Final CMI Report. The CM Effectiveness Reports shall include, at a minimum, the following:
 - i. A detailed narrative presenting an evaluation of the effectiveness of the selected remedy;
 - ii. Summaries of compliance with and progress toward achieving cleanup goals;
 - iii. Any significant revisions, adjustments, or proposed modifications to the selected remedy;
 - iv. Tabulated environmental sampling and monitoring data, specifically including, but not limited to, groundwater quality and elevation data, and a graphical representation of all constituents detected during each sampling event from recovery wells, monitoring wells, drinking water wells, and other locations;
 - v. Chain of custody, field reports, and laboratory data sheets to include the date of collection, the date the sample was extracted, and the date of sample analysis for samples collected during the reporting period;
 - vi. Any monitoring data (soil, air, dust, water) collected for any reason during the post-construction period for the purposes of monitoring potential for human and ecological exposure;
 - vii. Isoconcentration maps depicting the distribution of parameters for each sampling event;
 - viii. Time versus concentration plots for each monitoring parameter for effectiveness wells;
 - ix. Tabulated volumetric data on groundwater pumped and pumping rates (monthly and cumulative) for each recovery well;
 - x. Records of any groundwater recovery system operation time, including shut-down periods, not including any minor (less than 24 hours) shut-downs for repairs, maintenance, etc.;
 - xi. Potentiometric surface maps;

- xii. Description of land use during the reporting period at the designated area requiring corrective measures; and,
 - xiii. Findings of the Permittee's investigation into the continued effectiveness of institutional controls per Condition V.C.
- b. If at any time the Permittee determines that any remedy selection specified in Condition V.B. or V.C. of this permit no longer satisfies the applicable requirements of ADEM Admin. Code R. 335-14-5-.06(12) or this permit for releases of hazardous waste or hazardous constituents originating from SWMUs or AOCs, the Permittee must, within 90 days, submit an application for a permit modification to make any appropriate changes to the CMI Plan.
 - c. The application for changes in the CMI Plan, including changes in inspection and monitoring provisions of the CMI Plan, shall be submitted as an application for a permit modification pursuant to the requirements of ADEM Admin. Code R. 335-14-8-.04.

4. Final Report of Corrective Measures

Within 90 days following attainment of cleanup levels/goals as outlined in this Permit and the approved CMI Plan, the Permittee shall submit to the Department a Final Report of Corrective Measures (FRCM). The FRCM shall contain a certification by the Permittee and an independent professional engineer registered in the State of Alabama that all remedial measures required by this permit and the approved CMI Plan have been completed. The FRCM shall outline any procedures and schedules for dismantling of corrective measures systems, groundwater monitoring/recovery systems, removal of land use controls, and any other remedial systems/controls required by this permit or the approved CMI Plan.

Table V.1.

The following Solid Waste Management Unit(s) (SWMUs) and/or Area(s) of Concern (AOCs) numbers and descriptions correspond with those noted in the RCRA Facility Assessment (RFA) Report. Where discrepancies exist, the permit will take precedence.

List of SWMUs and AOCs requiring Corrective Measures.

SWMU/AOC NUMBER	SWMU/AOC NAME	UNIT COMMENT	POTENTIALLY AFFECTED MEDIA
AOC F	New found contamination south of Pond-1 and west of Pond-2	The area is approximately 160' (East- West)*120' (North-South)	Soil and Groundwater

PART VI**SUMMARY OF DEADLINES**

The summary information provided herein is intended only as a guide to the requirements of this permit. It is not intended to be all inclusive, nor is it intended to be used as a substitute for the full text of this permit.

PERMIT CONDITION	ITEM	DUE DATE
I.C.2.b.	Reapply for a renewal	180 days from the expiration of the current permit.
I.C.12.	Give notice to the Department of any planned physical alterations or additions to the permitted facility and any solid waste management units.	As soon as possible.
I.C.12.	Report any noncompliance with this permit that may endanger human health or the environment.	Orally within 24 hours from the time the Permittee becomes aware of the circumstances. Written submission shall also be provided within 5 calendar days of the time that the Permittee becomes aware of the circumstances.
I.F.	Waste Minimization Certification	Annually
I.G.2. and 4.	Update cost estimates	No later than 30 calendar days after the Department has approved a modification to the Closure Plan, Post-Closure Plan, or Corrective Action Plan, or any other plan required or referenced by this permit, if the change in the plan results in an increase in the amount of the cost estimate and annually as required by ADEM Admin. Code Rule 335-14-5-.08(3)(b), (5)(b), and (10)(b).
I.I.	Submit a written request for a permit modification pursuant to the requirements of ADEM Admin. Code Rule 335-14-8-.04(2).	At least 60 calendar days prior to a proposed change in facility design or operation.
II.C.2.	Inspect closed unit(s).	Monthly, after storms, and in accordance with the inspection schedule.
III.B.1.a.iii.	Notification of damaged groundwater monitoring wells.	Immediately in writing. The well must be repaired within 30 calendar days of Department's approval of repair procedures, and repair report must be submitted within 30 calendar days of repair.
III.B.1.d.	Install additional groundwater monitoring wells	As necessary to assess changes in the rate and extent of any plume of contamination, or as otherwise deemed necessary. Note: a permit modification request must be submitted within 90 calendar days prior to installation of additional groundwater monitoring well(s).

PERMIT CONDITION	ITEM	DUE DATE
III.B.1.e.	Install wells PZ-7	Within 180 calendar days after the effective date of this permit. Submit plan within 30 calendar days after the effective date of this permit. Submit report within 210 calendar days after the effective date of this permit and after well installation is completed.
III.B.1.f.	Abandon wells MW-21	Within 90 calendar days after the effective date of this permit. Submit report within 180 calendar days after the effective date of this permit.
III.B.2.a.	Determine groundwater surface elevation.	At least semi-annually and each time a well is sampled.
III. B.2.b.	Determine groundwater flow rate and direction.	Annually.
III.B.6.b.	Semi-annual groundwater monitoring report	Within 90 calendar days of the first sampling event and semi-annually thereafter.
III.B.6.c.	Quarterly progress reports.	Within 90 calendar days after the effective date of this permit and quarterly thereafter. See permit condition for start/stop/resume provisions.
III.E.2.	Implement corrective action plan	No later than 120 calendar days after the effective date of this permit.
III.E.4.a	Semi-annual corrective action effectiveness reports. Condition III.E.4.a.	Within 90 calendar days of each semi-annual anniversary of this permit after corrective action is initiated, and until corrective action is completed.
IV.B.1.	Notify the Department, in writing, of the discovery of any additional AOCs	Within 15 calendar days of discovery.
IV.B.2.	Notify the Department, in writing, of the discovery of any additional SWMUs	Within 15 calendar days of discovery.
IV.B.3.	Submit a SWMU Assessment Report (SAR) for each SWMU identified under IV.B.2.	Within 90 calendar days of notification.
IV.C.1.	Notify the Department, in writing, of any newly discovered release(s) of hazardous waste or hazardous constituents from SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means.	Within 15 calendar days of discovery.
IV.D.7.	Submit monthly RFI progress reports.	Monthly basis beginning in the second month following the initiation of the RFI
IV.D.8.	Submit RFI Report	Within 60 days from the completion of investigation activities.

PERMIT CONDITION	ITEM	DUE DATE
IV.E.2.	Submit CMI Plan	Within 120 days following the submittal of a RFI Report indicating that hazardous constituents have come to be located at any area of the Permittee's facility, or beyond the facility, at concentrations exceeding those appropriate for the protection of human health and the environment, or within 120 days following notification from the Department that a CMI Plan is required, whichever occurs earlier.
IV.E.4.	Demonstrate financial assurance for completing the approved remedy.	Within 120 calendar days after this Permit has been modified in accordance with Permit Condition IV.E.3.
IV.F.3.	Submit IM Report	Within 90 calendar days of completion of IM.
V.B.5.a.	Submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Department, a survey plat indicating the location and dimensions of the SWMUs, AOCs, and capped or partially remediated areas with respect to permanently surveyed benchmarks, the locations of sampling points, and the concentrations of hazardous constituents detected.	Within 90 days following the effective date of a permit modification addressing remedy selection.
V.B.6.a.	Record environmental Covenant	No later than the submission of the survey plat required in condition V.B.5.
V.B.6.b.	Submit to the Department a certification that the environmental covenant has been performed.	No later than the submission of the survey plat required in condition V.B.5.
V.B.6.d.	Submit Fees in accordance with ADEM Admin. Code r.335-5-1-.06	No later than the submission of the survey plat required in condition V.B.5.
V.D.3.	Begin submitting semi-annual CM Effectiveness Reports	180 days following the Department's approval of the Final CMI Report.
V.D.4.	Submit a Final Report of Corrective Measures (FRCM)	Within 90 days following attainment of cleanup levels/goals.